Minnesota Office of Traffic Safety

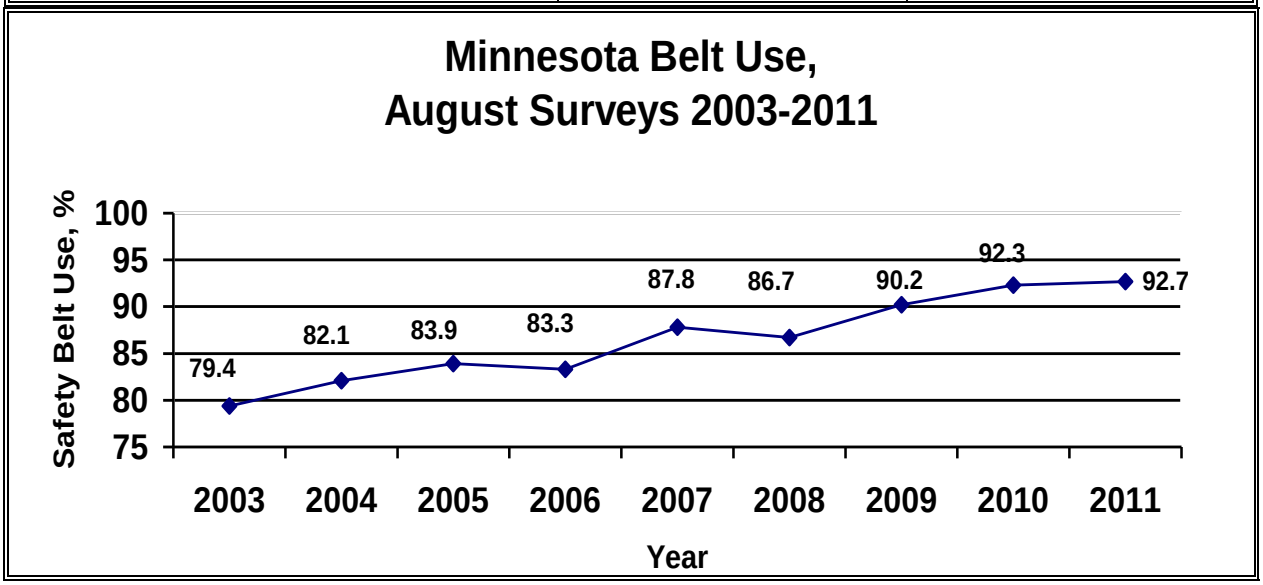
DIRECT OBSERVATION OF SAFETY BELT USE IN MINNESOTA: AUGUST 2011

Summary

- Data were collected at 240 sites in the 37 Minnesota Counties covering 85% of Minnesota's population
- Data were collected August 4 – 30, 2011 from 7:00 am to 6:00 pm
- 11,025 front seat occupants of Passengers Cars, Sport Utility Vehicles, Pickup Trucks and Vans/Minivans were observed
- Statewide safety belt use rate during August 2011 was 92.7 ± 1.1 percent
- Use lowest for pickup truck occupants (88.0%); highest for van/minivan occupants (95.7%)
- 4.7% of drivers were using a hand-held cell phone – meaning approximately 17,625 drivers were using cell phones on Minnesota roads during any given daylight hour

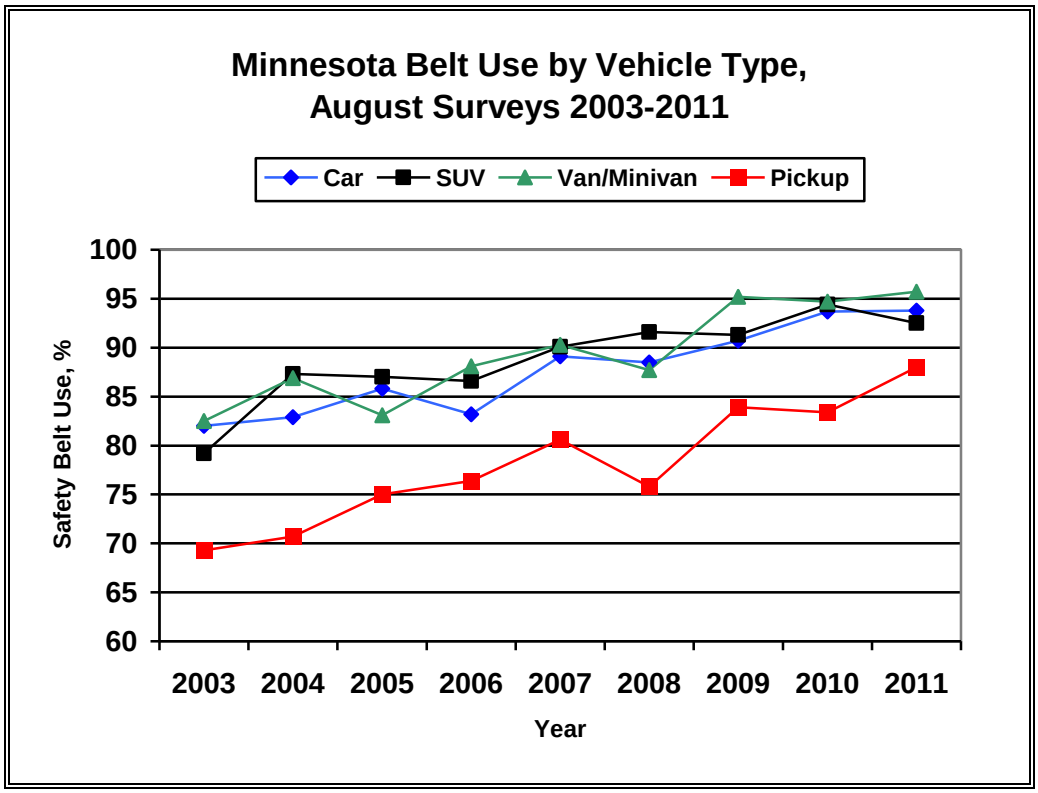
Percent Shoulder Belt Use by Vehicle Type

	Percent Use	Unweighted Observations
Passenger Cars	93.8 ± 1.0%	5,305
Sport Utility Vehicles	92.5 ± 2.3%	2,585
Vans/Minivans	95.7 ± 1.4%	1,421
Pickup Trucks	88.0 ± 2.9%	1,714
STATE OF MINNESOTA	**92.7 ± 1.1%**	**11,025**



Vehicle Type

The following figure shows the estimated statewide safety belt use rate by type of vehicle for Minnesota over the last nine years. As can be seen in this figure, belt use for cars, SUVs, and van/minivans were roughly the same during each survey wave. Safety belt use in pickup trucks, however, has been consistently lower than for other vehicle types. One positive note is that safety belt use for pickup trucks occupants has been increasing at a faster rate than for the other three vehicle types.



Motorcycle Helmet Use

The current survey recorded helmet use of motorcyclists that happened to be observed during the safety belt data collection. Because the safety belt survey design was based on travel patterns of passenger vehicles in Minnesota instead of motorcycle patterns and the low number of motorcycles seen in the survey (156 motorcyclists observed), no weighting of these data were performed. Instead, we present the unweighted helmet use rates so that a picture of the helmet use patterns in Minnesota can be realized.

August 2011 Motorcycle Helmet Use in Minnesota

	Percent Use	Unweighted Observations
Overall	57.1	156
Gender		
Male	52.9	119
Female	64.3	28
Position		
Driver	55.6	133
Passenger	65.2	23

Minnesota Belt Use: August 2011
Percent Shoulder Belt Use and Unweighted Observations (N)
by Vehicle Type and Subgroup

	All Vehicles		Car		SUV		Van/Minivan		Pickup Truck	
	Percent Use	N	Percent Use	N	Percent Use	N	Percent Use	N	Percent Use	N
Overall	92.7	11,025	93.8	5,305	92.5	2,585	95.7	1,421	88.0	1,714
Site Type										
Intersection	92.2	5,949	94.0	2,705	91.2	1,442	95.1	743	87.5	1,059
Exit Ramp	93.9	5,076	93.4	2,600	95.8	1,143	97.3	678	89.0	655
Time of Day										
7 - 9 a.m.	95.2	1,799	96.8	939	94.6	413	97.3	196	86.4	251
9 - 11 a.m.	88.9	2,009	92.1	932	87.6	480	93.7	265	81.1	332
11 - 1 p.m.	93.4	2,207	93.1	990	94.5	537	97.7	293	89.7	387
1 - 3 p.m.	93.3	2,348	94.4	1,145	90.8	530	97.8	307	90.0	366
3 - 5 p.m.	92.9	2,223	95.0	1,100	90.2	529	92.3	278	90.2	316
5 - 7 p.m.	93.9	439	96.0	199	92.0	96	91.9	82	94.2	62
Day of Week										
Monday	93.4	1,207	93.3	541	97.1	279	98.3	145	87.5	242
Tuesday	89.3	1,516	94.3	673	90.6	358	91.7	191	79.6	294
Wednesday	91.7	1,129	93.4	569	91.8	238	94.4	157	82.8	165
Thursday	90.1	1,012	91.4	499	86.8	283	95.0	118	84.2	112
Friday	91.6	3,148	91.4	1,646	86.7	724	99.2	393	94.1	385
Saturday	95.7	1,899	95.7	939	96.7	454	94.1	234	94.9	272
Sunday	94.2	1,114	96.7	438	92.5	249	97.2	183	88.7	244
Weather										
Sunny	91.8	7,014	93.8	3,431	90.4	1,630	94.9	907	86.0	1,046
Cloudy	93.1	3,674	93.6	1,732	93.4	867	96.2	462	88.7	613
Rainy	64.3	337	62.6	142	65.4	88	70.9	52	64.5	55
Sex										
Male	90.4	5,964	90.6	2,602	92.0	1,229	93.5	760	87.2	1,373
Female	95.4	5,033	96.2	2,687	93.1	1,348	98.0	659	90.8	339
Age										
0 - 10	92.9	36	94.9	12	100	13	54.6	4	95.6	7
11 - 15	92.3	196	95.0	76	88.8	64	100	29	88.3	27
16 - 29	91.3	3,596	93.3	2,153	89.3	695	95.0	326	84.1	422
30 - 64	93.0	6,469	93.9	2,673	93.7	1,698	95.5	951	88.9	1,147
65 - Up	96.6	705	97.1	381	94.1	109	98.9	111	87.7	104
Position										
Driver	93.2	8,713	93.8	4,273	93.9	2,020	95.2	1,048	89.0	1,372
Passenger	92.6	2,312	94.1	1,032	89.2	565	95.9	373	88.3	342

DISCUSSION

The statewide safety belt use survey showed that Minnesota has reached a milestone in statewide belt use, with the rate of 92.7 percent being the highest ever achieved in Minnesota. This increase in belt use can be directly attributed to the passage and continued enforcement of Minnesota's primary safety belt law.

Analysis of safety belt use by the various subgroups showed that there are several areas on which Minnesota should continue to focus efforts to increase safety belt use. One of the lowest use group discovered was young people, particularly males in pickup trucks. While this group has historically been found to have lower safety belt use than other groups, it is also the group in which the biggest gains in traffic-crash-related-injury reduction can be found. On a per mile driven basis, young drivers in the US have the highest rate of involvement in fatal crashes of any age group and their fatality rates are nearly four times greater than the comparable rate for drivers age 26 to 65 (Eby, Molnar, & St. Louis, 2008). Teenage drivers have by far the highest fatal crash involvement rate of any age group, based on number of licensed drivers. Motor vehicle injury rates also show that teenagers continue to have vastly higher rates than the population in general.

We discovered that the difference in safety belt use between males and females is continuing to decrease. This narrowing of the difference in use between sexes shows that the primary enforcement law has had a large effect on men and only a slight effect on women. It will be important to continue to design and implement programs that target young men for increased belt use, as it is likely that over time, belt use for this group will level off.

The preceding information was taken from the report "Minnesota Safety Belt and Motorcycle Helmet Use: August, 2011" by David W. Eby, Jonathon M. Vivoda and John Cavanagh. This report was funded by the National Highway Traffic Safety Administration through the Office of Traffic Safety. For more information see the complete report on the Minnesota Department of Public Safety, Office of Traffic Safety web site at: dps.mn.gov/divisions/ots/reports-statistics/Pages/default.aspx